C2150-3A

CHILTON'S 6/1985

AUTOMOTIVE INDUSTRIES

NUMBER ONE IN THE INDUSTRY SINCE 1895

JOS MC NALLY, SRI ACO EDITOR
CONGRESSIONAL INFO SERVICE (COPY #2)
4520 EAST-WEST HWY, SUITE 800
BETHESDA MD 20814

10th Annual SOURCE GUIDE TO SUPPLIERS

GM/Toyota's New Nova

AUTOMOTIVE INDUSTRIES

June, 1985/Volume 165, Number 6

FEATURES

39 CHRYSLER'S NEW GLOBAL STRATEGY
Chrysler ties up with Maserati and Mitsubishi to survive in the post-VRA jungle.

45 EUROPE'S GREAT EMISSIONS DEBATE
Compromise seems certain as the EEC zeros in on a three tiered emissions program.

52 ENGINE TRENDS: US VS IMPORTS
Plotting the power climb in US and imported car engines.

56 NOVA ASCENDING: CHEVY'S TOYOPET ARRIVES
A look at the first cars off the line at NUMMI.

61 EATON DEBUTS SUPERCHARGER
Eaton unwraps its Rootes blower, and Ford's interested.

64 BUILDING FORD'S AEROSTAR
Ford's St. Louis, MO assembly plant gears up to produce FoMoCo's minivan.

68 TOTAL CAR COEFFICIENT
AI's exclusive, objective rating of the 1985 car models puts Chevy's two made-in-Japan econoboxes at the top of the list.

73 AUTOMOTIVE OEM SOURCE GUIDE

113 ALPHABETICAL INDEX TO THE SOURCE GUIDE

145 SUPPLIER PROFILES
Supplier profiles are written and submitted by full-page or larger advertisers appearing in the June issue. While every attempt is made to monitor their accuracy, the publication assumes no responsibility for errors or omissions.

107 TRUCK AND OFF-HIGHWAY INDUSTRIES*

*Does not appear in all issues.

NEWS & DEPARTMENTS

7 Editorial: Bumpers, Belts & Buckles
9 Detroit: Open Letter to Congress
10 Newsline: Hot Glass
17 Marketdata: VRA Portioned
21 News: Austin Rover Plans
198 AIAG: Comic Book Approach to SPC
202 Computer Technology: Custom Cad
200 New Products
204 Technical Literature
212 Letters: GM's 14th Floor

COVER

Chrysler's new global strategy plus first peak at the GM/Toyota joint venture's first issue: the Chevy Nova.

NEXT MONTH

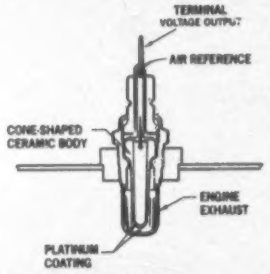
July brings an exclusive *AI* tour of the purchasing departments of the nine companies building cars in the US.

QUOTABLE

"I understand Ford never saw an Audi 5000S before they came up with that, right?"—Peter Fischer, vice-president of Audi Div., VWoA, on Ford's new Taurus/Sable models.

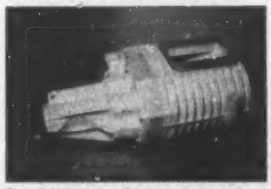
"An airbag is another kind of feeling—it's like a pistol on me, and I don't like a pistol on me."—Dr. Ferdinand Piech, Audi R&D chief.

Chrysler Strategy—p. 39



European Debate—p. 45

Chevy Nova—p. 56



Supercharger—p. 61

Aerostar Plant—p. 64

AUTOMOTIVE INDUSTRIES (ISSN 0273-656x) magazine is published monthly by Chilton Co., Chilton Way, Radnor, PA 19089. Chilton Company is a division of American Broadcasting Companies Inc., New York, NY. Subscription rates and single copy prices on request. Second Class Postage paid at Wayne, PA 19087 and additional mailing offices. POSTMASTER: Send address changes to AUTOMOTIVE INDUSTRIES, P.O. Box 1441, Riverton, NJ 08077. —Chilton Company, 1985. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to The Editor. (0273-656x/85 $1.00 + 25¢)

ONE OF THE ABC PUBLISHING COMPANIES

An Open Letter To Congress

by Joseph M. Callahan, Editor

A controversy of unusual intensity and significance is now raging in Congress, as it is in many areas of the country, as to the consequences of President Reagan's decision not to ask the Japanese to continue their Voluntary Restraint Agreement (VRA) on auto imports.

Despite comments in the media, there is no auto industry position on this question. General Motors emphatically favors the termination of these quotas, while Ford Motor Co., Chrysler Corp. and American Motors, as well as the United Auto Workers have predicted serious national ramifications will ensue from this decision by the President.

Now, Congress is grappling with this matter and it's quite clear that if any American or Japanese group is to take meaningful action on this critical issue, it will be the Congress.

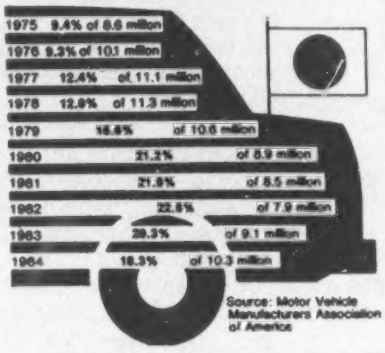
The critical nature of this issue is clearly indicated by the announcement from Japan that its nine automakers will increase their exports to the US in the first post-VRA year by 450,000 cars or about 25% above the 1.86 million authorized last year.

This added volume will increase the US's negative merchandise trade balance with Japan by another $5 billion, boosting the Japanese negative balance to at least $42 billion and the total negative balance to $128 billion, according to industry sources.

If the Japanese are willing to openly stake out this additional 5% of the US auto market during the present period of high congressional and public concern, just imagine how much they'll be striving for when the attention level is much lower in future years.

Many arguments have been used to support ending the VRA, but it's this reporter's opinion that the arguments have been quite defective.

Japanese Import Sales
In The United States


1975 9.4% of 8.6 million
1976 9.3% of 10.1 million
1977 12.4% of 11.1 million
1978 12.9% of 11.3 million
1979 16.8% of 10.6 million
1980 21.2% of 8.9 million
1981 21.9% of 8.5 million
1982 22.8% of 7.9 million
1983 20.3% of 9.1 million
1984 18.3% of 10.3 million
Source: Motor Vehicle Manufacturers Association of America

One argument is that this move by the President will preserve free trade and prevent a trade war. What absolute rot! The United States is the only major industrial country in the world that practices anything resembling free trade. Free trade cannot be a unilateral thing.

And as for the sanctimonious argument that a completely open American market is needed to prevent a trade war, the fact is that an international trade war has been going on for years and the US was defeated last year by the greatest margin in history—by $123 billion.

Furthermore, a large percentage of the products that are exported from the US are raw materials needed to produce the high labor-content finished goods that then find their way back to this market. In other cases, these US products are not readily available elsewhere.

A common argument for the VRA is that GM, Ford and Chrysler have just competed a couple of very profitable years. This is true to an extent, but the profits aren't really that great if one honestly looks at the losses of the three previous years, or at the expenditures required for future new models or at the ratio of profits to sales.

But even more important is the fact that these three large companies are not the entire American auto industry. In addition to the other domestically-based automakers, there are approximately 28,000 suppliers to the auto industry. Thousands of other large and small firms service these suppliers and their employees, so it's demonstrably clear that the real "auto industry" permeates our entire nationwide economy.

Most of these suppliers will be hurt much more than the Big Three makers by a major decline in the American auto industry. They will lose business not just because of the rapidly increasing number of imported cars in this country, but also because all the American auto companies are going to be forced to buy an ever-increasing percentage of their parts from low-cost producers in Japan, Korea, Brazil, Taiwan and even China in the near future.

Finally, the argument is made that it was appropriate to discontinue the VRA because, after four years of semi-protection, the American companies can compete with the Japanese automakers, if only they'll try.

This is simply not so. This is untrue because of the 25% under-valuation of the yen which is an enormous advantage for the Japanese, because the Japanese Commodity Tax of 18.5% and 23% (on larger cars) acts as a tremendous subsidy for the Japanese, because the US provides most of the national defense for Japan, resulting in a 5% national defense cost disadvantage for all US products and because US labor costs are 35-40% higher than those in Japan.

Every country in the world protects its auto industry in one way or another. The American auto industry has practically no other protection and for that reason it should have the limited protection of the VRA. ■

Listen to Joe's Auto Report every Monday through Friday over WJR Radio, Detroit.

AI MARKETDATA

The Envelope, Please

According to the Japanese newspaper Asahi Shimbun, the 1985 VRA allotment has been decided for each Japanese automaker. Interestingly, 37% of the increase will go to GM's and Chrysler's captive import cars built by Isuzu, Suzuki and Mitsubishi. Presumably this will be used to defuse some of the furor associated with the US trade imbalance with Japan. After all, how can the American companies complain about more Japanese cars being sold here when they're selling them, too? One other point: the following list does not include station wagons and vans.

1985 Voluntary Restraint Agreement Allotments

Company	Increase	1985 Allotment	1984 Allotment
Toyota	12.5%	620,760	551,880
Nissan	12.5%	547,920	487,100
Honda	15.1%	428,590	372,400
Mazda	32.4%	229,720	173,500
Mitsubishi	52%	186,010 (Chrysler—140,490 (MMSA—45,520)	122,400 (Chrysler—87,600) (MMSA—34,800)
Subaru	54.6%	117,200	75,800
Isuzu	134.0%	117,100 (GM—91,100) (Isuzu—26,000)	50,000 (GM—30,000) (Isuzu—20,000)
Suzuki	209.0%	52,500	17,000

In Search Of... The $125 Ride

Chrysler's aging Omni-Horizon subcompact models continue to sell well and score high in *AI's* annual Total Car Coefficient (see this issue). Still, ChryCo chairman Lee Iacocca complains of a lack of profit on the cars because of 8.8% financing programs. But sales of the little Simca-based econocars have rocketed because of the finance incentives. "I never saw such results in all my years in Detroit," says a happy Lido. "Our days supply [of Omni-Horizons] was 130. It dropped to 30 in four weeks time. They were knocking our doors down for 8.8 financing which shows how sensitive people are to car loans. What you don't know is that 8.8 financing went on 60-months paper mostly.

"There's a big wave of people there who, if you show them how to get a car for 125 bucks a month, they'll knock your damn doors down."

GM Outpaces Ford In Europe

With figures for market shares just announced in the European passenger car sector, GM has managed to nose ahead of Ford with 12.3% as opposed to 12.2% of the total market over the first three months of the year. It is generally considered by industry observers in Europe that General Motors has deliberately followed a policy of buying market share in Europe over the past year or two. GM's car operations on the Continent have been losing money steadily but sales have increased. Backbone of the General's success has been the J-car (Cavalier/Ascona) which is now showing its age, while the Spanish-built Corsa/Nova small car is establishing itself well.

Charge Of The Light Brigade

Competition is becoming more and more warlike in the compact truck market, with price sensitivity a critical issue for dealers and buyers alike. It's no wonder—the market is expanding dramatically, with total sales of over 1.7 million units in 1984, surpassing (for the first time) the better than 1.4 million full-size pickups sold in '83. Now all domestic makers have or soon will have compact pick-ups; AMC has just unveiled its Cherokee-based Comanche pickup in both two- and four-wheel-drive versions, and Dodge will soon be showing its N-truck—which is to be sized between the minis and maxis. Duncan Brodie, general director of truck sales for GMC truck and coach operations, estimates 93% of all truck sales in 1985 will be in the light truck segment.

No Drydocking This Fleet

The Big American Car, which now commands only 10% of the US market, will lose more of its mystical grip on Joe Citizen by 1990, according to J.D. Power and Associates. Within four years the floatmobiles should be pulling in only 8% of US car sales. No matter—the Big Three aren't docking these boats, but instead will be counting on this segment's juicy profits now that VRA has expired, say the Power people.

AI'S TOTAL CAR COEFFICIENT

Chevy's one-two econobox punch from Japan—the Sprint and Spectrum—KO the rest of the field in our annual formula for finding the quick, roomy, frugal and inexpensive cars of the US market.

TCC	UNDER $8,000
.48	Chevrolet Sprint; 1.0-L, 5-spd man.
.41	Chevrolet Spectrum; 1.5-L, 5-spd man.
.37	Plymouth Horizon; 2.2-L, 5-spd man.
.31	VW Golf; 1.8-L, 5-spd man.
.30	Chrysler Colt Turbo; 1.6-L turbo, 5-spd man.
.29	Dodge Omni GLH; 2.2-L, 5-spd man.
.29	Renault Encore LS; 1.7-L, 5-spd man.
.28	Toyota Tercel 3-dr; 1.5-L, 5-spd man.
.26	Honda Civic S; 1.5-L, 5-spd man.
.26	Subaru GL-10; 1.8-L, 5-spd man.
.25	Dodge Omni GLH Turbo; 2.2-L turbo, 5-spd man.
.31	Group Average

TCC	$8000 to $12,000
.28	VW GTI; 1.8-L; 5-spd man.
.24	Pontiac Sunbird S/E Turbo; 1.8-L turbo; 5-spd man.
.22	Toyota Corolla GTS; 1.6-L, 5-spd man.
.22	VW Jetta GL; 1.8-L, 5-spd man.
.21	Ford Mustang GT; 5.0-L V8, 5-spd man.
.21	Oldsmobile Calais; 3.0-L V6, 3-spd A/T
.20	Honda Prelude; 1.8-L, 5-spd man.
.19	Plymouth Reliant; 2.6-L, A/T.
.18	Mazda 626 TS; 2.0-L, 5-spd man.
.17	Chevrolet Caprice Classic; 4.3-L V6, 4-spd A/T
.17	Dodge Daytona Turbo Z; 2.2-L, 5-spd man.
.16	Chevrolet Caprice Classic; 5.0-L V8, 4-spd A/T
.16	Mercury Marquis; 3.8-L V6, 3-spd A/T
.16	Subaru Turbo RX; 1.8-L turbo, 5-spd man.
.16	VW Scirocco; 1.8-L, 5-spd man.
.15	Ford LTD LX; 5.0-L HO V8, 4-spd A/T w/OD
.14	Buick Somerset Regal; 3.0-L V6, 3-spd A/T
.12	Isuzu Impulse; 1.9-L, 5-spd man.
.18	Group Average

TCC	$12,000 to $18,000
.18	Merkur XR4Ti; 2.3-L turbo, 5-spd man.
.14	Audi 4000S; 1.8-L, 5-spd man.
.14	Chevrolet IROC Camaro; 5.0-L HO V8, 4-spd A/T
.14	Nissan Maxima SE; 3.0-L V6, 5-spd man.
.13	Mitsubishi Galant; 2.3-L, 4-spd A/T
.12	Pontiac 6000 STE; 2.8-L V6, 3-spd A/T
.11	Audi Coupe GT; 2.2-L 5-cyl., 5-spd man.
.10	Alfa Romeo GTV6; 2.5-L V6; 5-spd man.
.10	Oldsmobile 98; 3.8-L V6, 4-spd A/T
.09	BMW 318i; 1.8-L, 5-spd man.
.07	Audi 5000S; 2.2-L, 5-spd man.
.12	Group Average

TCC	$18,000 to $25,000
.11	Volvo 740 Turbo Wagon; 2.3-L, 4-spd man. w/OD
.10	Peugeot 505S Turbo; 2.2-L turbo, 5-spd man.
.10	Saab Turbo 16; 2.0-L turbo, 5-spd man.
.09	Volvo 760; 2.1-L turbo, 4-spd man. w/OD
.08	BMW 325e; 2.7-L, 5-spd man.
.08	Mercedes 190E; 2.3-L, 5-spd man.
.07	BMW 528e; 2.7-L, 5-spd man.
.07	Cadillac Fleetwood; 4.1-L V8, 4-spd A/T
.07	Porsche 944; 2.5-L, 5-spd man.
.07	Group Average

TCC	Over $25,000
.06	BMW 535i; 3.4-L, 5-spd man.
.05	BMW 735i; 3.4-L, 5-spd man.
.05	Chrysler Limousine; 2.6-L, 3-spd A/T
.04	Porsche 928S; 5.0-L V8, 5-spd man.
.03	Jaguar XJ6; 4.2-L, 3-spd A/T
.03	Mercedes-Benz 500SEL; 5.0-L V8, 4-spd A/T
.04	Group Average

by Lindsay Brooke

Like the *tsunami* tidal wave of the Western Pacific, the Chevrolet-badged Suzuki Sprint and Isuzu Spectrum have swept the top two places in *AI's* annual Total Car Coefficient (TCC) rating. Scoring .48 and .41 ratings respectively, the Chevy imports clearly outpaced the third-place (.37) Plymouth Horizon, last year's TCC champ and sibling to the '83 TCC-winning Dodge Omni.

The TCC is a mathematical formula which uses objective measurements—interior volume, fuel mileage, 0-60 mph time and price to form a composite of the "ideal" car. The formula is: (interior volume x mpg) √ (0-60 mph time x price) x 10 = TCC.

Interior volumes (which on station wagons include only the passenger area) and city mpg numbers are supplied by the EPA. The *Kelly Blue Book Fifth Edition* is our source of retail FOB or POE prices; only options which affect performance (engine, transmission, etc.) were figured into the base retail price.

Zero to 60 mph times were generated by *AI* staffers, who managed to hold on to their drivers licenses throughout the testing. PBS' *MotorWeek* once again gave valuable 0-60 assistance and a few hard-to-get figures were culled from various enthusiast publications.

The fiesty little Sprint, with its 1.0-L three-cylinder engine and five-speed manual gearbox, achieved its record .48 TCC number for two basic reasons. It's priced at $5151—over $1000 less than the Spectrum, nearly $1000 less than the Horizon and a whopping $2100 under the fourth-place gas-engined VW Golf.

And then there's mileage. On this count, Sprint betters many motorcycles with its 47 mpg city rating. Spectrum gets closest of the test cars with 38 mpg, but the Golf (27 mpg) and Horizon (26) figures aren't even in the Sprint's league.

On the flip side the Horizon and Golf, and to a lesser degree Spectrum, positively embarrass the Sprint in 0-60 times (9.7, 10.6 and 12.4 sec. respectively versus Sprint's 14.0 sec.) and interior volume (85, 87 and 85 ft³ vs. Sprint's 74 ft³). But the little "Chevuki" has adequate space and zip to more than hold its own here.

Obviously price plays the spoiler in TCC. Note the TCC number overlap between price categories. If it weren't for pricing, cars like the GTI, Volvo 740 Turbo Wagon and especially Merkur XR4Ti would place strongly among much less expensive cars. ■

Single copies of this article are free.
Input #507 on Reader Action Card.
For reprint information contact AUTOMOTIVE INDUSTRIES, Radnor, PA 19089.

TCC Winners—1983-85

	Int Vol (ft³)	MPG	0-60 (sec)	Price	TCC
'85 Chevrolet Sprint	74	47	14.0	$5151	.48
'84 Plymouth Horizon 2.2	85	28	9.7	$6031	.41
'83 Dodge Omni 2.2	84	28	10.6	$6050	.37
'83 Toyota Tercel	84	34	13.1	$5899	.37